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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/763,209

01/26/2004

Akiyoshi Tafuku

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21171

7590

09/01/2006

STAAS & HALSEY LLP

SUITE 700

1201 NEW YORK AVENUE, N.W.

WASHINGTON, DC 20005

EXAMINER

SANDERS JR, JOHN R

ART UNIT

PAPER NUMBER

3735

DATE MAILED: 09/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/763,209	Applicant(s) TAFUKU ET AL.	
	Examiner John R. Sanders	Art Unit 3735	

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 June 2006.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-16 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>1/26/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 25 June 2006 have been fully considered but they are not persuasive. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.
2. This initial examination was conducted by an Examiner who is no longer employed at the U.S. Patent and Trademark Office. Applicant's allegation that the prior Examiner indicated in a personal conference that the application would be allowed is not given weight, since there is no record of said conference provided on the record by the prior Examiner. The initially applied rejections are maintained and reproduced below.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 2, 5, 6, 9 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding Claims 1, 2, 5, 9, and 10, Applicant claims "in image data subsequent to the image data". It is unclear how the "image data subsequent" is differentiated from "the image data" as the claim language refers to the same "image data".

5. Regarding Claims 2 and 6, it is unclear in claims 2 and 6 whether “subsequent image data” is the “image data subsequent” or “the image data” as claimed in claims 1 and 5 respectively.

6. Further regarding Claims 2 and 6, Applicant claims “a second area” in claims 2 and 6, however, “a second area” has been previously claimed. Furthermore, there is no previous first area in “a proximity area”. Thus interpreting “a second area in a proximity area” as --a second proximity area-- is also unclear.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-10, 12 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Cornsweet et al.’376 (US Patent 5,410,376). Cornsweet et al.’376 teaches an eye tracking method and apparatus including a video camera (col. 3, line 34); eye tracking system (tracking are storing unit) (col. 4, lines 56-68 and col. 5, lines 1-11); and a computer with three subsystem programs (program code means) including tracking servo loop, pupil recognition and blink detection (col. 5, lines 43-44), capable of storing and comparing a new value (eye characteristic) and old value (eye characteristic, tracking area) from subsequent image data where values are read from four quadrant detectors (area of the eye) on the eye (col. 4, lines 62-63) and a difference is calculated between the two values in a FIFO system (calculating correlation value)

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to calculate whether the difference is greater than 20% of the active signal (threshold) thereby determining whether blinking has occurred (judging open/close state).

9. Regarding Claims 2 and 6, Cornsweet et al.'376 teaches an eye tracking method and apparatus including a computer (controller) identifying a new value (a second area) in the quadrant detector output (proximity area of the tracking area in the subsequent image data) (col. 13, lines 20-26).

10. Regarding Claims 4 and 8, Cornsweet et al.'376 teaches an eye tracking method and apparatus including a computer with three subsystem programs including tracking servo loop, pupil recognition and blink detection (col. 5, lines 43-44), capable of storing and comparing a new value (second area) and old value (tracking area) from subsequent image data where values are read from four quadrant detectors on the eye and a difference (change) is calculated between the two values where the new value is stored.

11. Regarding Claims 12 and 14, Cornsweet et al.'376 teaches an eye tracking method and apparatus including a blink detector subsystem that calculates a rapid change (function) in the quadrant detector sum as the eyelid cuts across the backlighted pupil due to several factors and judging an open/close state of the eye based on the quadrant detector sum change (detected shape of the lid) (col. 12, lines 43-56).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 11, 13, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cornsweet et al.'376. Cornsweet et al.'376 teaches an eye tracking method and apparatus including a video camera (identifying means) (col. 3, line 34) and a blink detector subsystem that calculates a rapid change (function) in the quadrant detector sum as the eyelid cuts across the backlighted pupil due to several factors and judging an open/close state of the eye based on the quadrant detector sum change (detected shape of the lid) (col. 12, lines 43-56) but does not expressly teach detecting the shape of a lid in the identified eye area and judging an open/close state of the eye on the basis of the detected shape of the lid.

14. At the time the invention was made it would have been obvious to one of ordinary skill in the art that calculating a rapid change can be detected over the quadrant detectors then the lid shape can also be determined as the lid closing equates to both the rapid quadrant detector sum change and the open/close state of the eye.

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

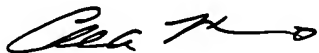
Any inquiry concerning this communication or earlier communications from the examiner should be directed to John R. Sanders whose telephone number is (571) 272-4742.

The examiner can normally be reached on M-F 10:00 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor II can be reached on (571) 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


jrs
29 August 2006


Charles A. Marmor, II
SPE, Art Unit 3735